

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Canceled)

2. (Currently Amended) Δ The plasma display unit of Claim 1 comprising:

a front panel having a plurality of display electrode pairs disposed on a glass substrate;

a rear panel in a confronting arrangement via discharge space, having a plurality of

address electrodes that forms discharge cells in combination with the display electrode pairs; and

a phosphor layer for emitting by discharging, comprising

a main material including a first oxide, and

a second oxide containing an element with electronegativity larger than the oxide

included in the main material;

wherein

the surface of the phosphor layer would bear a positive (+) charge if the phosphor layer

were formed without the second oxide,

the second oxide is added such that the absolute value of the charge of the phosphor layer does not exceed 0.01 $\mu\text{C/g}$, wherein and

the main material including the first oxide is formed of an aluminate-based green phosphor of $\text{BaAl}_2\text{O}_{19}:\text{Mn}^{2+}$ $\text{BaAl}_{12}\text{O}_{19}:\text{Mn}^{2+}$.

3. (Currently Amended) Δ The plasma display unit of Claim 1 comprising:

a front panel having a plurality of display electrode pairs disposed on a glass substrate;

a rear panel in a confronting arrangement via discharge space, having a plurality of

address electrodes that forms discharge cells in combination with the display electrode pairs; and

a phosphor layer for emitting by discharging, comprising

a main material including a first oxide, and

a second oxide containing an element with electronegativity larger than the oxide

included in the main material;

wherein

the surface of the phosphor layer would bear a positive (+) charge if the phosphor layer were formed without the second oxide,

the second oxide is added such that the absolute value of the charge of the phosphor layer does not exceed 0.01 $\mu\text{C/g}$, wherein and

the main material including the first oxide is formed of a yttrium oxide-based green phosphor of $(\text{Y}, \text{Gd})\text{BO}_3:\text{Tb}^{3+}$ ($\text{Y}, \text{Gd})\text{BO}_3:\text{Tb}^{3+}$.

4. (Canceled)

5. (Currently Amended) A The plasma display unit of Claim 1 comprising:
a front panel having a plurality of display electrode pairs disposed on a glass substrate;
a rear panel in a confronting arrangement via discharge space, having a plurality of
address electrodes that forms discharge cells in combination with the display electrode pairs; and
a phosphor layer for emitting by discharging, comprising
a main material including a first oxide, and
a second oxide containing an element with electronegativity larger than the oxide
included in the main material;

wherein

the surface of the phosphor layer would bear a positive (+) charge if the phosphor layer were formed without the second oxide,

the second oxide is added such that the absolute value of the charge of the phosphor layer does not exceed 0.01 $\mu\text{C/g}$, wherein and

the main material including the first oxide is formed of a yttrium oxide-based red phosphor of $(\text{Y}, \text{Gd})\text{BO}_3:\text{Eu}^{3+}$ or $\text{Y}_2\text{O}_3:\text{Eu}^{3+}$ ($\text{Y}, \text{Gd})\text{BO}_3:\text{Eu}^{3+}$ or $\text{Y}_2\text{O}_3:\text{Eu}^{3+}$.

6. (Currently Amended) The plasma display unit of Claim [[1]] 2, wherein the second oxide containing an element with electronegativity larger than the oxide included in the main material is at least any one of titanium oxide (TiO_2) (TiO_2); tin oxide (SnO_2) (SnO_2); germanium oxide (GeO_2) (GeO_2); tantalum oxide (Ta_2O_5) (Ta_2O_5); niobium oxide (Nb_2O_5) (Nb_2O_5); vanadium oxide (V_2O_5) (V_2O_5); molybdenum oxide (MoO_3) (MoO_3); boron oxide (B_2O_3) (B_2O_3); silicon oxide (SiO_2) (SiO_2); and antimony oxide (Sb_2O_3) (Sb_2O_3).

7 – 10. (Canceled)

11. (Currently Amended) A The phosphor of Claim 10 comprising:
a main material including a first oxide, and
a second oxide containing an element with electronegativity larger than the oxide
included in the main material;
wherein
the surface of the phosphor would bear a positive (+) charge if the phosphor were formed
without the second oxide, and
the second oxide is added such that the absolute value of the charge of the phosphor does
not exceed 0.01 $\mu\text{C/g}$, wherein the main material including the first oxide is formed of an
aluminate-based green phosphor of $\text{BaAl}_{12}\text{O}_{19}:\text{Mn}^{2+}$ $\text{BaAl}_{12}\text{O}_{19}:\text{Mn}^{2+}$.

12. (Currently Amended) A The phosphor of Claim 10 comprising:
a main material including a first oxide, and
a second oxide containing an element with electronegativity larger than the oxide
included in the main material;
wherein
the surface of the phosphor would bear a positive (+) charge if the phosphor were formed
without the second oxide, and
the second oxide is added such that the absolute value of the charge of the phosphor does
not exceed 0.01 $\mu\text{C/g}$, wherein the main material including the first oxide is formed of a yttrium
oxide-based green phosphor of $(\text{Y}, \text{Gd})\text{BO}_3:\text{Tb}^{3+}$ $(\text{Y}, \text{Gd})\text{BO}_3:\text{Tb}^{3+}$.

13 – 18. (Canceled)

19. (New) The plasma display unit of Claim 6, wherein the phosphor layer is formed by mixing $x\text{BaO} \cdot y\text{Al}_2\text{O}_3 \cdot z\text{MnO} \cdot b\text{MO}$ with the relationship $0.75 \leq x \leq 1.0$, $5.0 \leq y \leq 6.0$, $0.2 \leq z \leq 0.4$, and $0.01 \leq b \leq 0.1$.

20. (New) The plasma display unit of Claim 3, wherein the second oxide (MO) containing an element with electronegativity larger than the oxide included in the main material is at least any one of titanium oxide (TiO_2); tin oxide (SnO_2); germanium oxide (GeO_2); tantalum oxide (Ta_2O_5); niobium oxide (Nb_2O_5); vanadium oxide (V_2O_5); molybdenum oxide (MoO_3); boron oxide (B_2O_3); silicon oxide (SiO_2); and antimony oxide (Sb_2O_3).

21. (New) The plasma display unit of Claim 20, wherein the phosphor layer is formed by mixing $(1 - x - y)\text{Y}_2\text{O}_3 \cdot x\text{Gd}_2\text{O}_3 \cdot \text{B}_2\text{O}_3 \cdot y\text{Tb}_2\text{O}_3 \cdot \text{bMO}$ with the relationship $0 \leq x \leq 0.5$, $0.05 \leq y \leq 0.3$, and $0.01 \leq b \leq 0.1$.

22. (New) The plasma display unit of Claim 5, wherein the second oxide (MO) containing an element with electronegativity larger than the oxide included in the main material is at least any one of tin oxide (SnO_2); germanium oxide (GeO_2); tantalum oxide (Ta_2O_5); niobium oxide (Nb_2O_5); vanadium oxide (V_2O_5); molybdenum oxide (MoO_3); and antimony oxide (Sb_2O_3).

23. (New) The plasma display unit of Claim 22, wherein the phosphor layer is formed by mixing $x\text{Y}_2\text{O}_3 \cdot y\text{Eu}_2\text{O}_3 \cdot \text{bMO}$ with the relationship $0.75 \leq x \leq 0.9$, $0.1 \leq y \leq 0.2$, and $0.03 \leq b \leq 0.05$.

24. (New) The phosphor of Claim 11, wherein the second oxide (MO) containing an element with electronegativity larger than the oxide included in the main material is at least any one of titanium oxide (TiO_2); tin oxide (SnO_2); germanium oxide (GeO_2); tantalum oxide (Ta_2O_5); niobium oxide (Nb_2O_5); vanadium oxide (V_2O_5); molybdenum oxide (MoO_3); boron oxide (B_2O_3); silicon oxide (SiO_2); and antimony oxide (Sb_2O_3).

25. (New) The phosphor of Claim 24, wherein the phosphor layer is formed by mixing $x\text{BaO} \cdot y\text{Al}_2\text{O}_3 \cdot z\text{MnO} \cdot \text{bMO}$ with the relationship $0.75 \leq x \leq 1.0$, $5.0 \leq y \leq 6.0$, $0.2 \leq z \leq 0.4$, and $0.01 \leq b \leq 0.1$.

26. (New) The phosphor of Claim 12, wherein the second oxide (MO) containing an element with electronegativity larger than the oxide included in the main material is at least any one of titanium oxide (TiO_2); tin oxide (SnO_2); germanium oxide (GeO_2); tantalum oxide (Ta_2O_5); niobium oxide (Nb_2O_5); vanadium oxide (V_2O_5); molybdenum oxide (MoO_3); boron oxide (B_2O_3); silicon oxide (SiO_2); and antimony oxide (Sb_2O_3).

27. (New) The phosphor of Claim 26, wherein the phosphor layer is formed by mixing $(1 - x - y)\text{Y}_2\text{O}_3 \cdot x\text{Gd}_2\text{O}_3 \cdot \text{B}_2\text{O}_3 \cdot y\text{Tb}_2\text{O}_3 \cdot b\text{MO}$ with the relationship $0 \leq x \leq 0.5$, $0.05 \leq y \leq 0.3$, and $0.01 \leq b \leq 0.1$.